generally of progressive paralysis, in order to prove his contention that the motor phenomena accompanying such diseases may originate in the cortex and cortical white substance, and he believes that the cases cited show that movements allied to hemichorea and hemiathetosis may be called forth by irritation of the cortex. As most of the cases of hemichorea and hemiathetosis are referable to lesions of the compact pyramidal tract in the internal capsule, the author thinks it unnecessary to present any original cases. That lesions in the medulla may call forth motor disturbance, though possible and probable, has not yet been conclusively shown.

J. C.

Pathological Gaits.—Chr. Leegard, of Christiana, calls attention to the fact that but few of the symptoms of nervous disease can be used more for diagnostic purposes than the gait. To obtain a classification, he divides the various kinds into co-ordinated and inco-ordinated movements. Gaits with co-ordinated movements he calls synergic movements. They are associated with changes in the cortico-muscular system, which connects the cortex with the muscles. This system consists of two parts: The cortico-motor cells with the peripheral nerves and muscles on the other side. In affections of the former the gait is spastic, and in those of the latter is paralytic. After having described their general causes and methods of appearance, he considers the partially paralytic gaits which he has observed. The gluteal gait appears with paralysis of the gluteaus maximus. It is seen on attempting to extend the thigh, and is not so soon observed in walking on a level as on ascending an incline when there is an inclination to tire quickly? The patient among other movements steps with difficulty upon a chair or arises himself up when he has reached for something on the floor. In paralysis of the lesser gluteal there, appears a waddling gait, so that in hemipleg, a half sided one-sided-affection of these muscles, the patient waddles towards the affected side. The full knee-gait is observed when the both flexors and extensors are paralysed. The knee has then no support, and the patient, to preserve his equilibrim, takes his cane and places it close in near the leg, where it acts as a splint; at the same time he tries to keep even a portion of the body weight from resting on that side. The cane is here held on the affected side, while in the other diseases the cane is carried on the well side. The over extended knee-gait is seen in the paralysis of the quadriceps femora. In order not to let the knee sink down during walking, the patient places his knee, the center of equilibrum, back of the knee, and when he steps on that foot and over extends that knee on account of the paralysed extensor, a condition called by him steppage is characterized by an equinus position of the foot with dependent toes, and is due to a paralysis of the muscles on the anterior side of the foot, supplied by the pedoneus nerve. In order to prevent the affected toes from dragging on walking, the foot is lifted abnormally high up. Often it is not placed down at once, but is first upon the heel and then the ball of the toes, so that a double sound results. The writer develops his ideas, in short, on the asynergic, non co-ordinated forms of gait. He emphasizes that the cerebral forms, varieties of these ataxies, are essentially different from the spinal. In the former the gait is inco-ordinate as the equilibrium is lost, while in the latter the equilibrium is difficult, as the gait is inco-ordinate.—*Nordiskt Medicinskt Arkiv*, No. 1, 1893.

F. H. P.

PHYSIOLOGICAL.

The Functions of the Sympathetic Ganglia.—A reply to a criticism by Dr. F. Vas (Hale White, M.D., Brain, Winter, number, 1892).

In the September number of the JOURNAL OF NERVOUS AND MENTAL DISEASES, Dr. Donaldson referred in a critical way to an article on the Structure of the Chromatin in the Sympathetic Ganglion Cell. The author of the article, Dr. F. Vas, considered that the results of his investigation were opposite and contrary to the views which had been advanced by other investigators, and one of them Dr. Hale White has replied to some of his criticisms. White believes that some of the sympathetic ganglia, especially the superior cervical ganglion, in adult men are functionless organs and are the remnants of structures having important functions in the lower animals. He bases his conclusion on the results of a large number of examinations made on man and the lower animals. For instance, the superior cervical ganglia taken from forty-nine adult human beings were examined. Of these only one showed entirely normal nerve cells. In the others the cells were more or less shrunken, non-nucleated, granular and irregular in outline.

Vas objects that these conditions of the cells should